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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,082	12/06/2001	Dimitri Charrette	111387	5354

25944 7590 06/20/2003

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EXAMINER

MILLER, EDWARD A

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 06/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/003,082

Applicant(s)

CHARRETTE ET AL.

Examiner

Edward A. Miller

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-34 is/are pending in the application.
- 4a) Of the above claim(s) 30-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 15-34 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

Art Unit: 3641

1. Applicant's election with traverse of Group I and the elected species in Paper No. 7 is acknowledged. The traversal is on the ground(s) that there is a common search and the burden should not be placed on applicants for another application. This is not found persuasive because There is clearly a different search required for the distinct groups as originally set forth. Further, the question of burden is not persuasive, in view of the complexity relating to the polymers and other distinct ingredients used in the composition, versus the unique steps of the method, and as originally set forth in Paper No. 4.

The requirement is still deemed proper and is therefore made FINAL.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 15-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims, while improved, still are problematic. Claim 15 requires acrylic esters, but dependent claim 16 requires only an "acrylic polymer", and claim 17 recites "acrylic rubbers and polyacrylates." It is not clear what is required for each of the recited terms, but there is nothing in the terminology actually used in the dependent claims, that requires per se an "acrylic ester". While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). IN claim 22, the additive is not cited as being optional, or as being required. However, in claim 15, it is recited as being optional. It is suggested that the term "optional" should be added to the term in claims 22 to preclude inconsistency, as so the metes and bounds of the claimed subject matter will be clear. The claims remain somewhat narrative and indefinite, failing to conform with

Art Unit: 3641

current U.S. practice. For example, in claim 15, lines 6-8, it is not clear whether the binder may include any polymer not named that has a MW as recited, and then may also have an acrylic ester of low weight, e.g., as a cross-linker for the high MW polymer. A number of terms are incorrectly rendered, such as in claims 28-29. The recited compounds do not appear to be wetting agents. Note Monte et al., where titanates are taught to be crosslinking agents. The recited compounds are not wetting agents, as this term is understood.

4. Claims 15-29 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Note paragraph 3 above. It is not clear that applicant has properly disclosed what the invention is, or enabled the ordinary artisan to make and use it, as to the polymer details therein. Note the references cited in the art rejection regarding acrylic binders. The language originally used in the specification and original claims is insufficient to reasonably describe the polymers, etc., that applicants would use as the polymer binder.

5. Claims 15-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a new matter rejection. It is not clear what applicants meant by the "gum" language, but it is also not clear that the proper correction is to cancel this term. On the one hand, "gum" is used in the pyrotechnic arts in the sense of guar gum, e.g., in aqueous dispersions as explosives, or in compositions that are processed in an aqueous manner. On the other hand, this might be analogous to the US term of "gum eraser", where "gum" connotes a rubber compound. To merely cancel

Art Unit: 3641

“gum” in the claims, is to add new matter by broadening the possibilities. This language, as now used, does not appear to be originally supported. Applicants are required to point out the basis for the claim language relating to the acrylic binder, wherever found, or to cancel the new matter.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 15-29, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheffee et al., in view of Evans, Yamoto, Nielson et al., Han et al., and Monte et al.

Scheffee et al. teach the basic invention of gas generating propellants which contain AP oxidizer, with a scavenging agent to scavenge the chlorine generated during combustion. See col. 3, lines 39-50. Further, such compositions may include binders which form the, or part of the, fuel, col. 4, lines 38-44. Among the binders taught, are polymeric compounds generally, including polyacrylonitriles. This suggests known binders of the acrylic type, generally. In view of Evans (col. 2, line 64-col. 3, line 43, for acrylics which may include nitriles at lines 12-15, e.g., and plasticizers at col. 4, lines 2-9), Yamoto (col. 4, lines 56-60), Nielson et al. (col. 2, lines 55-64, as well as in the examples, col. 8, line 49, col. 14, lines 35-36), and Han et al. (col. 5, lines 40-44), it would have been obvious to substitute the taught acrylic binders for the binder/fuel of Scheffee et al. Monte et al. further teach using titanates as bonding agents with ballistic effects (col. 3, line 65 and the Abstract), and for polymers including acrylics (col. 3, line 35) and containing AP (col. 2, line 48). Such are used including as gas generators, col. 1, line 8. Thus, although the examiner does not know what type of acrylic polymer the claims require, it would have been obvious to substitute the taught acrylic polymers for the

Art Unit: 3641

acrylic polymer in Scheffee et al, absent unexpected results relating to the specifics of the applicants' composition. Variation of specific notoriously well known details, ingredients, and amounts, would have been obvious to one of ordinary skill in the art. It is well settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

8. Applicants' supplied reference has been considered, but it is found to be not particularly relevant to the composition.

9. The corrected Abstract has been noted with appreciation.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

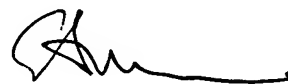
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning either this or an earlier communication from the Examiner should be directed to Examiner Edward A. Miller at (703) 306-4163. Examiner Miller may normally be reached Monday-Thursday, from 10 AM to 7 PM.

If attempts to reach Examiner Miller by telephone are unsuccessful, his supervisor Mr. Carone can be reached at (703) 306-4198. The Group fax number is (703) 305-7687.

If there is no answer, or for any inquiry of a general nature or relating to the application status, please call the Group receptionist at (703) 308-1113.

Miller/em
June 16, 2003



EDWARD A. MILLER
PRIMARY EXAMINER